
Oral | Symbol S (Solid Earth Sciences) | S-CG Complex & General

[S-CG61_2AM2] Petrology, Mineralogy and Resource Geology

Convener: *Toshiaki Tsunogae (Faculty of Life and Environmental Sciences (Earth Evolution Sciences), University of Tsukuba), Koichiro Fujinaga (Department of Systems Innovation, School of Engineering, University of Tokyo), Akira Miyake (Department of Geology and Mineralogy, Graduate School of Science, Kyoto University), Nobutaka Tsuchiya (Department of Geology, Faculty of Education, Iwate University),
 Chair: Koichiro Fujinaga (Department of Systems Innovation, School of Engineering, University of Tokyo), Akira Miyake (Department of Geology and Mineralogy, Graduate School of Science, Kyoto University)
 Fri. May 2, 2014 11:00 AM - 12:45 PM 311 (3F)

We widely invite presentations in the fields of petrology, mineralogy and resource geology. Especially description of minerals and rocks, investigation of their origin and evolution by field investigation and/or laboratory experiments, and development of new methods are accepted.

12:15 PM - 12:30 PM

[SCG61-P15_PG] Validation of mass attenuation coefficients in quantitative electron probe microanalysis (EPMA)

3-min talk in an oral session

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Keywords: electron probe microanalysis (EPMA), quantitative analysis, mass attenuation coefficients, matrix correction

Mass attenuation coefficients (m.a.c.s) are important factors of accuracy in quantitative electron probe microanalysis (EPMA). New m.a.c.s are calculated from the latest version of two datasets[1][2] for $Z = 1 - 92$. The combination of two datasets solves the problems within them, such as spurious discontinuity and unnatural increase at high-energy sides of absorption edges. New m.a.c.s improve accuracy including geological applications.[1] Henke B.L., Gullikson, E.M. and Davis, J.C. (1993) At. Data Nucl. Data Tables, 54, 181 - 342.[2] Hubbel J.H. and Seltzer S.M. (1995) NISTIR, 5632, pp. 116.